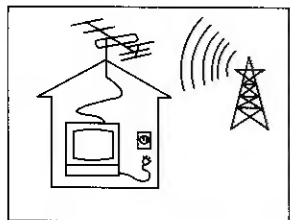# Panasonic

Operating Instruction
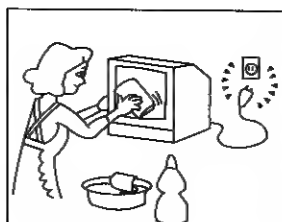
Colour Television
TC-14Z88A

Dear Panasonic customer

Welcome to the Panasonic family of customers. We hope that you will have many years of enjoyment from your new colour television.
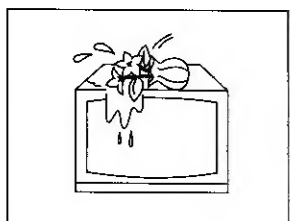
Safety Instructions

The TV set can be operated on AC AUTO 110–240V, 50/60Hz.

The cabinet and picture tube can be kept in good condition by simply wiping with a clean, soft cloth moistened with mild detergent and water. Do not use solutions containing benzol, petroleum or a chemical cloth. For safety, remove the plug from the wall outlet.
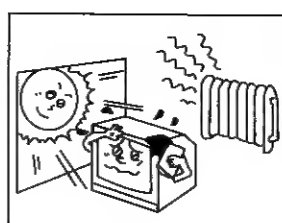
The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
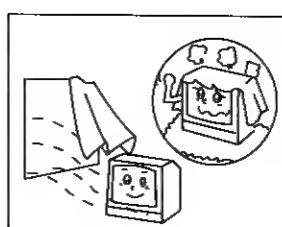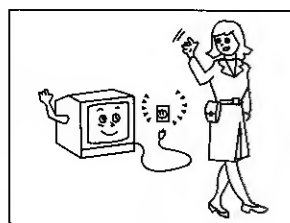
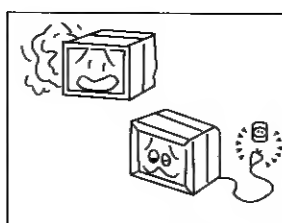Adequate ventilation is essential to prevent failure of electrical components.
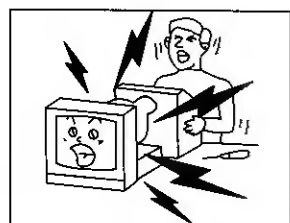
Do not remove the rear cover, as live parts are accessible when it is removed.

Avoid exposing the TV set to direct sunlight and other source of heat.

Remove the plug from the wall outlet (Power point) when the TV set is not used for a prolonged period of time.

Do not use this set if abnormal operation occurs.
EX: smoke, odd sounds or smells, turn the power switch off and disconnect the AC power if you notice any unusual operation.

Connect the Aerial Cable to the RF In Terminal
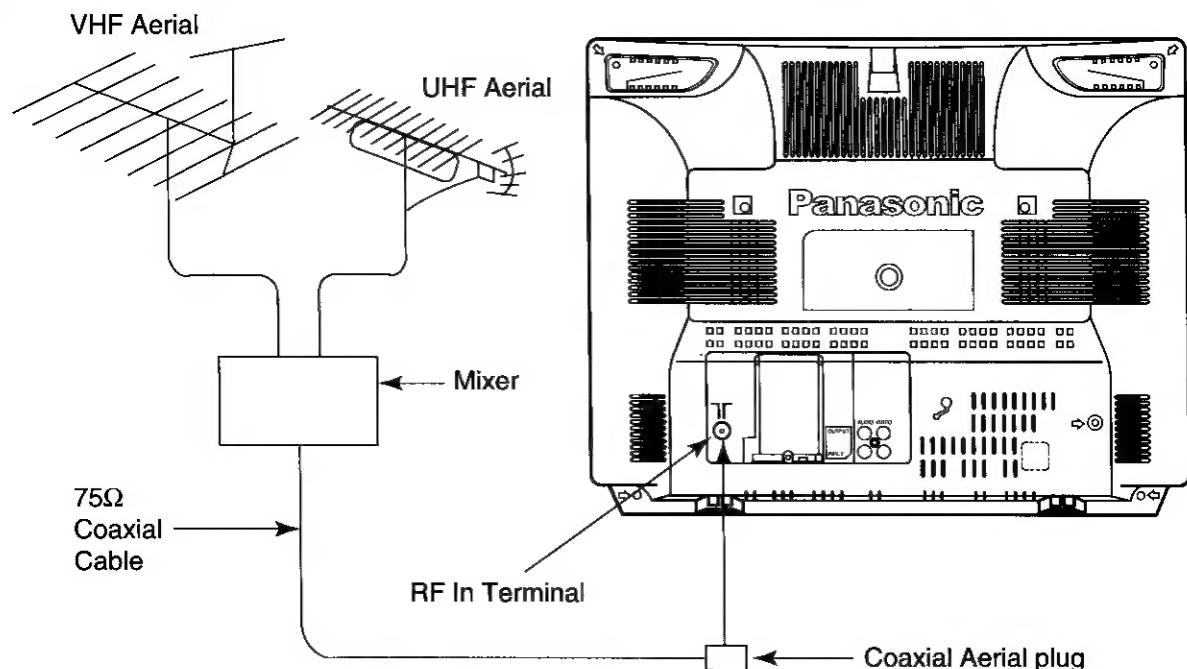
To obtain the best quality picture and sound, an external antenna, the correct cables (75 Ohm coaxial) and the correct terminating plug will be required.

If a communal antenna system is used, you may require the correct connection cable and plugs between the wall antenna socket and your television receiver.

Your local Television Service Dealer may be able to assist you in obtaining the correct antenna system for your particular area and accessories required.

Any matters about antenna installation, upgrading of existing systems or accessories required, and the cost incurred, are the responsibility of the customer.
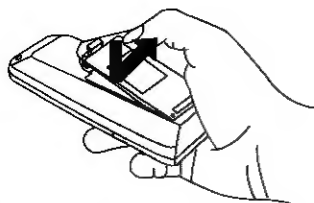
Note :
If your existing antenna system uses 300 Ohm to 75 Ohm Balun, see Below.
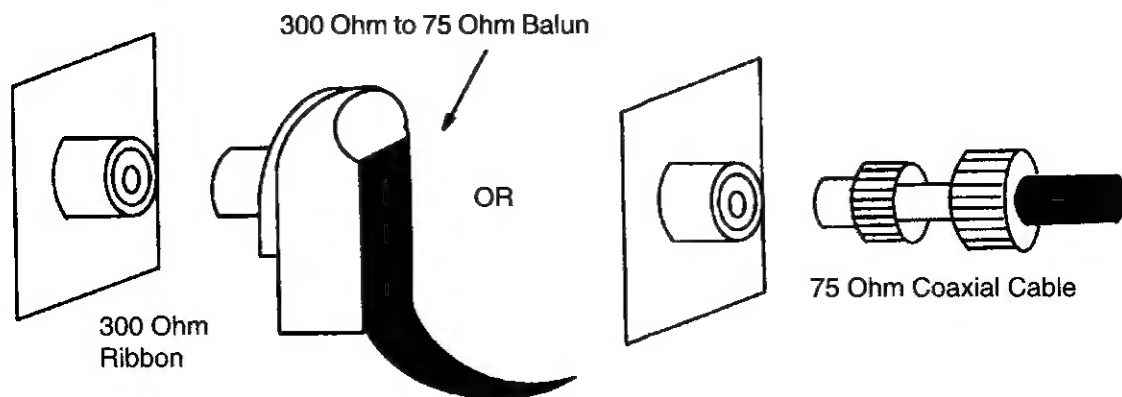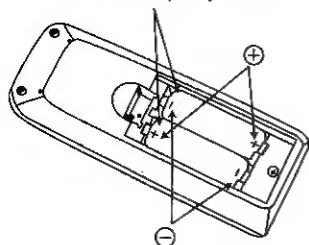
(Before Operating This Set)

Battery Installation

1		**Open the cover.**
		Press bottom downward and pull out the cover.

2	Two "R6 (AA)" size	**Batteries: Use two "R6 (AA)" size batteries.**
		Insert the batteries ensuring correct polarity. This is identifiable by the "+" and "−" symbols on both the batteries and inside the battery compartment.
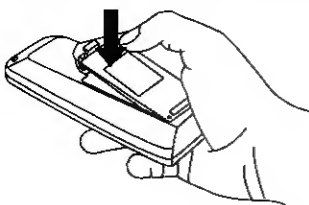
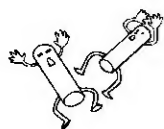| 3		**Replace the cover.**

Do not use rechargeable (Ni-Cd) batteries.
They are different in shape and performance and may fail to ensure correct operation.

⚠ Battery cautions

The incorrect use of batteries can cause electrolyte leakage which will corrode the Remote Control or cause the batteries to burst.

Old Batteries   New Batteries

Replacement both batteries at the same time.

Don't mix battery types
(alkaline with carbon, zinc. etc.)

Don't Recharge.
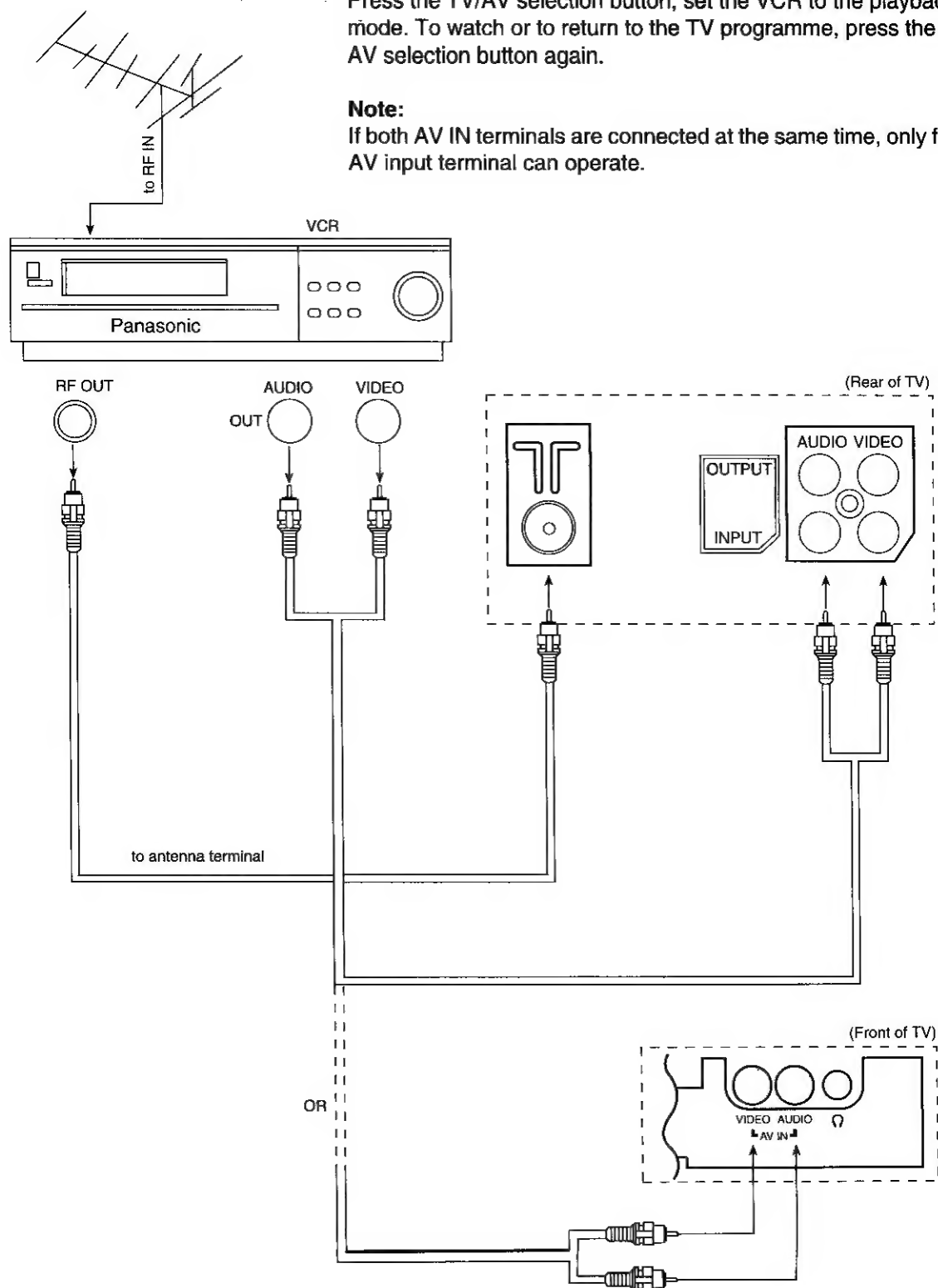
Connections (Audio Input and Video Input)

To watch the VCR picture:
Connect the VCR cable to the AUDIO INPUT and VIDEO INPUT terminals at the rear of TV.
Press the TV/AV selection button, set the VCR to the playback mode. To watch or to return to the TV programme, press the TV/AV selection button again.
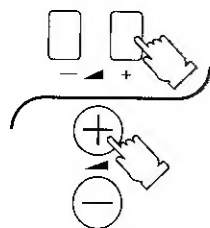
Note:
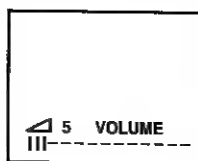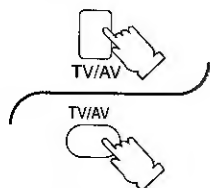If both AV IN terminals are connected at the same time, only front AV input terminal can operate.

to RF IN

VCR

Panasonic

RF OUT

AUDIO
OUT

VIDEO

(Rear of TV)

OUTPUT

INPUT

AUDIO VIDEO

to antenna terminal

(Front of TV)

OR

VIDEO   AUDIO   Ω
AV IN

5.

Volume Adjustment

Press the Volume Up or Down button to increase or decrease the sound volume level.
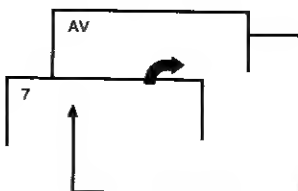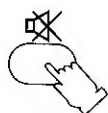
⊿ 5   VOLUME

6.

TV / AV Selection

Press the "TV/AV" button to select TV and AV input signal modes sequentially.
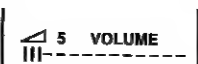
AV

7

7.

Sound Mute Button

Press this button to mute the Sound completely.
Press the button once again to restore the previous sound level, and cancel the mute.

⊿ 5   VOLUME

The "Mute" symbol will appear.
(Colour changes to Red)

8.

Recall Button

Press the RECALL button to di play the current system status. Press this button until display is cancelled.
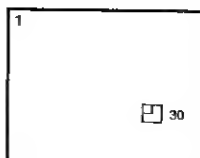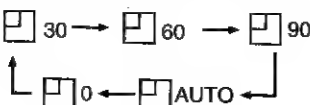

9.

Off-Timer Button

The TV set may be preset to switch to stand-by after a fixed period.
By pressing "Off-Timer" button, you can select the preset time either 30, 60, or 90 minutes.

⊟ 30 → ⊟ 60 → ⊟ 90
⊟ 0 ← ⊟ AUTO

When the Off-Timer reaches its last 3 minutes, it starts blinking before going to stand-by condition.

Note :

Setting Off-timer to AUTO mode. If the set is not switched off, when the TV station ends broadcasting, it will automatically go to the stand-by condition after 5 minutes. This AUTO mode will not operate when the TV receiver is in AV mode.

How to cancel the Off-Timer setting:

1. Set the preset time condition to "0" mode by pressing the Off-Timer button.
2. Turning the TV set off.

10. PIC MENU

Picture Menu Operation

By pressing the PICTURE MENU button, you can sequentially select the Picture menus as shown below:

| On-screen	Function
MENU DYNAMIC	For watching in brighter environments. This menu selects a higher than normal level of contrast.
MENU STANDARD	For watching in normal (evening) environments. This menu selects normal level of contrast.
MENU SOFT	For watching in dark environments. This menu selects reduced level of contrast.

11. WAKE UP

Wake Up Timer Button

1. Press the "Wake Up Timer" button.

2. Press the position left or right button to select the Wake Up Timer. (Wake Up Timer will increase or decrease by 10 minutes when left or right button is pressed.)

Note :
Wake Up Timer can be set up to 12 hours.

3. After setting the Wake Up Timer, switch the TV set to stand-by mode. (LED light will blink ON and OFF during stand-by mode.)

4. When the time Wake Up Timer has elapsed in the set will automatically switch on. (Press any button to cancel the Wake Up Timer on screen display.)
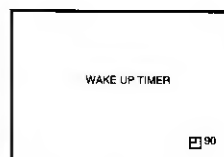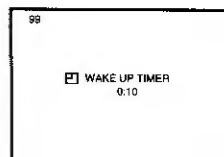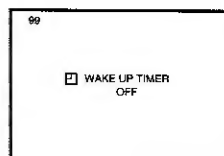
Note :
i) After the Wake Up Timer is set and the TV mode is still not switched off, the Wake Up Timer will continue to count down until the timer is off.
ii) When Wake Up Timer switch ON the TV set, the off-timer is set to 90 minutes mode automatically. Press any button to cancel the off-timer. If no button is pressed, the TV set will switch off automatically after 90 minutes.

5. To cancel the Wake Up Timer.
You can choose any of the following:
i) Switch off the main power.
ii) Press the position left or right button, until OFF is reached.
iii) Press the NORMALIZE button when Wake Up Timer OSD is displayed.

12.

Normal (N) Button

By pressing the Normal "N" button on the Remote Control while Picture or Sound Control Function is displayed, the selected function will be changed to the Normal Mode. Normalization will not occur if the function is not displayed when the "N" button is pressed. The Normal mode is the factory preset condition. Returning to this original condition is called "Normalization".
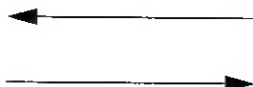
13.

R-TUNE

Rapid Tune Button

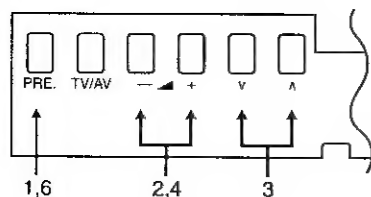Press the button to access previously viewed channel.
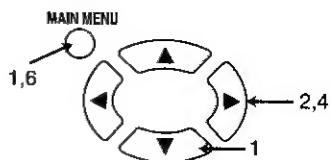
PRESENT CHANNEL
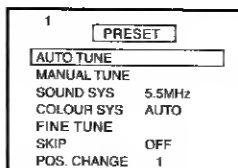BEING VIEWED
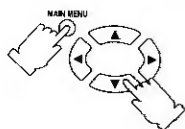
LAST VIEWED
CHANNEL

(Tuning Procedure)

Automatic Tune

OR

1.	Press the "PRE." (PRESET) button, until "AUTO TUNE" function is selected.		Channel Number Automatic Tune condition.
	Press the "MAIN MENU" and "Position" buttons, until "AUTO TUNE" function is selected.	1 PRESET AUTO TUNE MANUAL TUNE SOUND SYS 5.5MHz COLOUR SYS AUTO FINE TUNE SKIP OFF POS. CHANGE 1	
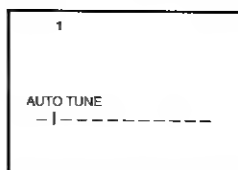
2.	Press the Volume Up "+" or Down "–" button.		Search start.
	Press the Position Right button.	1 AUTO TUNE – I – – – – – – – – – –	The best tuning position is automatically memorized.

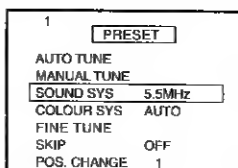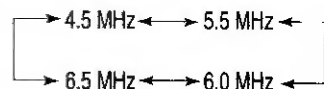| 3.	After all stations are tuned, the on-screen display will automatically change from "AUTO TUNE" to "SOUND SYS" Position. Confirm the sound condition of each Programme Number by using the Programme Number Up "∧" button.	1 PRESET AUTO TUNE MANUAL TUNE SOUND SYS 5.5MHz COLOUR SYS AUTO FINE TUNE SKIP OFF POS. CHANGE 1	If the Sound is not clear or no sound is produced on a Programme Number, then follow the next Step 4. **Note:** When sound volume is too small to confirm, turn it up by using the sound volume button on the Remote Control.
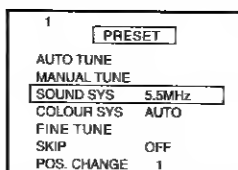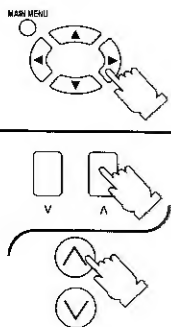
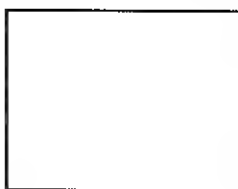| 4.	If necessary, press the Volume Up "+" or Down "–" button, to improve the Sound quality.	1 PRESET AUTO TUNE MANUAL TUNE SOUND SYS 5.5MHz COLOUR SYS AUTO FINE TUNE SKIP OFF POS. CHANGE 1	The sound indicator will change as follows: → 4.5 MHz ←→ 5.5 MHz ← ↑ ↓ → 6.5 MHz ←→ 6.0 MHz ←
	Press the Position Left or Right button to improve the sound quality.		
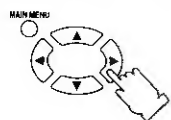
5.	Use the Programme Number Up "∧" button to sequentially check each station. If necessary repeat step 3 to 4 for each Programme Number.

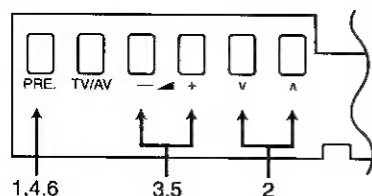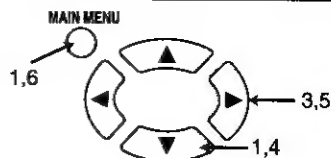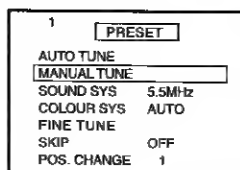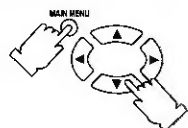| 6.	Press the "PRE." (PRESET) button 5 times.		This returns the set to the normal viewing condition.
	After all stations are tuned, press the "MAIN MENU" button twice.		

13

Tuning Procedure

Manual Tune

OR

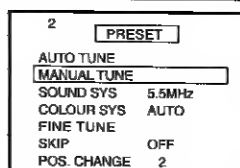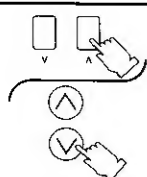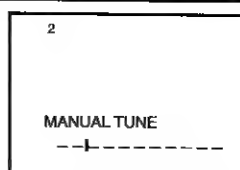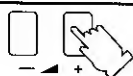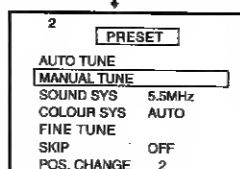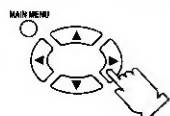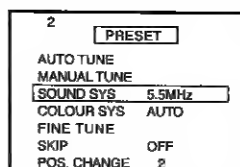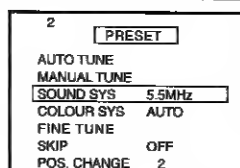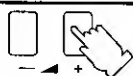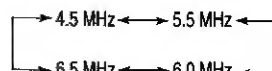| 1. | Press the "PRE." (PRESET) button twice, setting the Manual Tune mode. | 1   PRESET AUTO TUNE / MANUAL TUNE / SOUND SYS 5.5MHz / COLOUR SYS AUTO / FINE TUNE / SKIP OFF / POS. CHANGE 1 | Channel Number Manual Tune condition. |
	Press the "MAIN MENU" and "Position" buttons, until "MANUAL TUNE" function is selected.		
2.	Press either the Channel Up or Down button.	2 PRESET AUTO TUNE / MANUAL TUNE / SOUND SYS 5.5MHz / COLOUR SYS AUTO / FINE TUNE / SKIP OFF / POS. CHANGE 2	Select the desired Channel Number.
3.	Press the Volume Up "+" or Down "–" button. Volume "+" : Next higher Channel. Volume "–" : Next lower Channel	2 / MANUAL TUNE / --⊥----------	Search Start.
	Press the Position Left or Right button. Position Left : Next lower Channel. Position Right : Next higher Channel.	2 PRESET AUTO TUNE / MANUAL TUNE / SOUND SYS 5.5MHz / COLOUR SYS AUTO / FINE TUNE / SKIP OFF / POS. CHANGE 2	The best tuning position is automatically memorized.
4.	Press the "PRE." (PRESET) button.	2 PRESET AUTO TUNE / MANUAL TUNE / SOUND SYS 5.5MHz / COLOUR SYS AUTO / FINE TUNE / SKIP OFF / POS. CHANGE 2	"SOUND SYS" Condition.
	Press the "Position" button until "SOUND SYS" function is selected.		
5.	If the sound is not clear or no sound is produced on a Programme Number Position, press the Volume Up "+" or Down "–" button.	2 PRESET AUTO TUNE / MANUAL TUNE / SOUND SYS 5.5MHz / COLOUR SYS AUTO / FINE TUNE / SKIP OFF / POS. CHANGE 2	You may improve the Sound quality. The sound indicator will change as follows:
	Press the Position Left or Right button, to improve the sound quality.		4.5 MHz ↔ 5.5 MHz / 6.5 MHz ↔ 6.0 MHz **Note:** When sound volume is too small to confirm, turn it up by using the sound volume button on the Remote Control.
6.	Press the "PRE." (PRESET) button 5 times.		This returns the set to the normal viewing condition.
	Press the "MAIN MENU" button twice.		
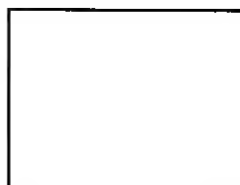
14

Tuning Procedure

Fine Tune

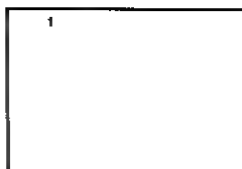PRE. TV/AV — ◢ + ∨ ∧
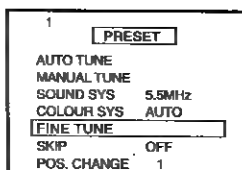
2,4   3   1

MAIN MENU

2,4 — 3
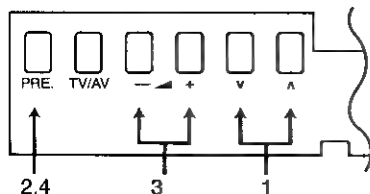
OR
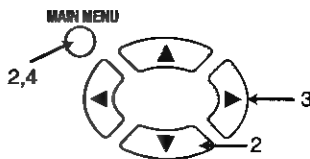
Under normal reception condition, this function is not used. However, in areas of poor reception or constant interference, a slight adjustment on the fine tuning can improve the picture and sound quality.

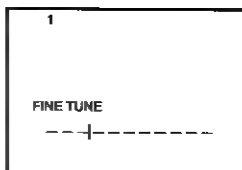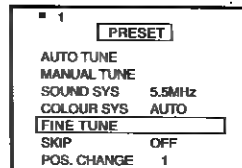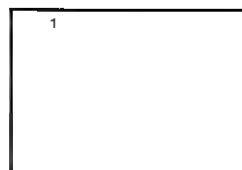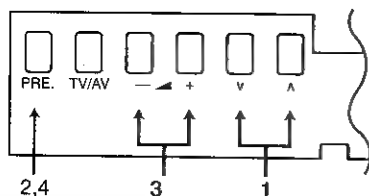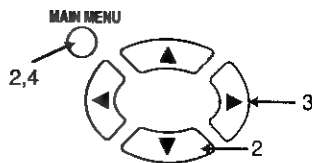|			
1.	∨ ∧	Select the channel which you want to try to improve, using the Channel Up or Down button.	Select the desired Channel Number.
2.	PRE.	Press the "PRE." (PRESET) button 5 times, setting the Preset Menu to "FINE TUNE".	Fine Tune condition.
	MAIN MENU	Press the "MAIN MENU" and "Position" buttons, until "FINE TUNE" is selected.	
3.	— ◢ +	Press the Volume Up "+" or Down "–" button until the clear picture is received.	Fine Tune Start.
	MAIN MENU	Press the Position Left or Right button until the clear picture is received.	The AFC function is deactivated. The " ■ " symbol appears to the left of the Channel Number.
4.	PRE.	Press the "PRE." (PRESET) button 3 times.	This returns the set to the normal viewing condition.
	MAIN MENU	After all stations are tuned, press the "MAIN MENU" button twice.	

Step 2 screen:
```
1        PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS    5.5MHz
COLOUR SYS   AUTO
FINE TUNE
SKIP         OFF
POS. CHANGE  1
```

Step 3 screen:
```
1

FINE TUNE

-- + -------
```

```
■ 1        PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS    5.5MHz
COLOUR SYS   AUTO
FINE TUNE
SKIP         OFF
POS. CHANGE  1
```

Tuning Procedure
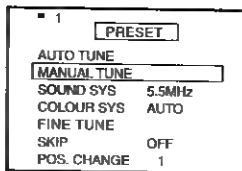
How to Cancel the Fine Tuning

OR

Cancelling previously adjusted (manually) fine tuning, means reactivating the AFC (Automatic Frequency Control) Function, also known as AFT (Automatic Frequency Tuning). Reactivating the Automatic Fine Tuning means allowing the set to automatically tune optimum tuning position, for that Channel Number.

1. Select the "AFC OFF" Channel Number which you want to return to Automatic Frequency Control (Cancel the manual Fine Tuning).
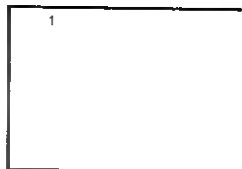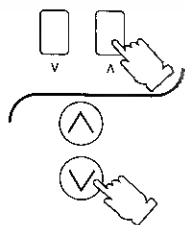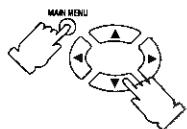
"AFC OFF" Channel Numbers are indicated to you by the " ■ " symbol to the left of the Channel Number.

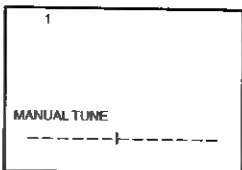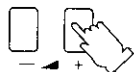**2.** Press the "PRE." (PRESET) buttons twice, setting the Preset Menu to set to "MANUAL TUNE" mode.

Press the "MAIN MENU" and "Position" buttons, until "MANUAL TUNE" function is selected.

Manual Tune condition.

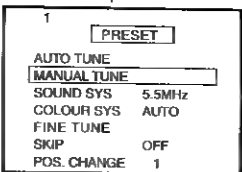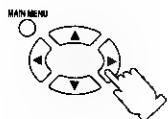| ■ 1	PRESET
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF
POS. CHANGE	1

3. Press the Volume Up "+" or Down "–" button briefly.

MANUAL TUNE

The best tuning position is automatically memorized.

Press the Position Left or Right button briefly.

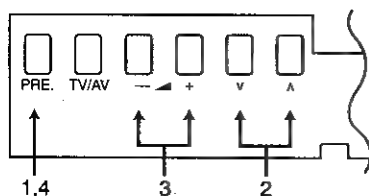| 1	PRESET
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF
POS. CHANGE	1

4. Press the "PRE." (PRESET) button 6 times.

This returns the set to the normal viewing condition.
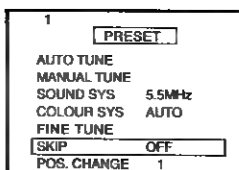
Press the "MAIN MENU" button twice.

16

How to Skip Programme Number
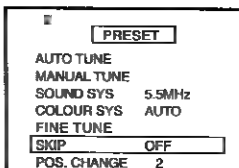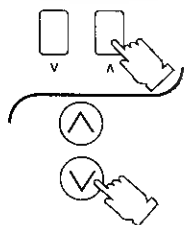

OR
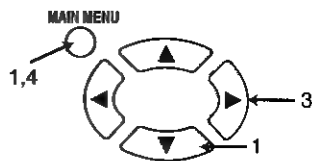
1.	Press the "PRE." (PRESET) button 6 times, setting the Preset Menu to "SKIP".		Channel Skip condition.

1
PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS   5.5MHz
COLOUR SYS   AUTO
FINE TUNE
SKIP   OFF
POS. CHANGE   1

Press the "MAIN MENU" and "Position" buttons, until the Preset Menu to "SKIP" .

2. Select a Programme Number you want to skip, by pressing the Channel Number Up or Down button.

PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS   5.5MHz
COLOUR SYS   AUTO
FINE TUNE
SKIP   OFF
POS. CHANGE   2

3. Press the Volume Up "+" or Down "–" button.

Press the Position Left or Right button.

PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS   5.5MHz
COLOUR SYS   AUTO
FINE TUNE
SKIP   ON
POS. CHANGE
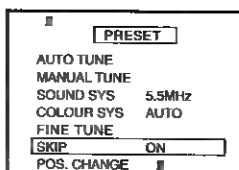
The displayed "OFF" condition changes to "ON".

4. Press the "PRE." (PRESET) button twice.

This returns the set to the normal viewing condition.

Press the "MAIN MENU" button twice.

17
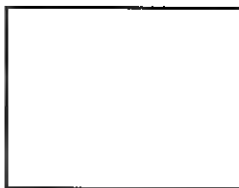
How to Cancel the Skip Function

OR

1.

Press the "PRE." (PRESET) buttons 6 times, setting the Preset Menu to "SKIP".

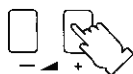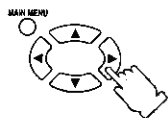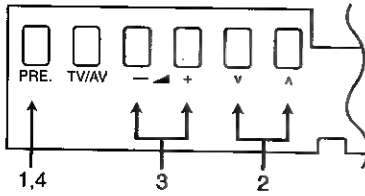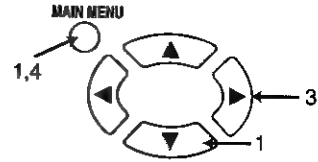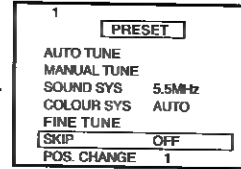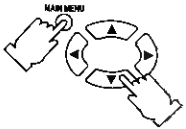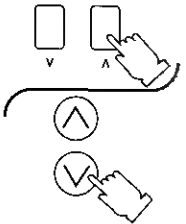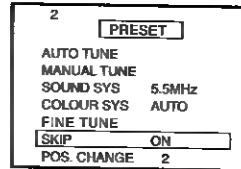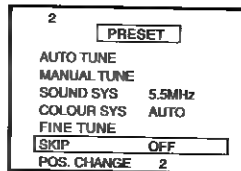Press the "MAIN MENU" and "Position" buttons, until "SKIP" is selected.

```
1          PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS      5.5MHz
COLOUR SYS     AUTO
FINE TUNE
SKIP                OFF
POS. CHANGE      1
```

Channel Skip condition.

2.

Select the skipped Programme Number, by pressing the Channel Number Up or Down button.

```
2          PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS      5.5MHz
COLOUR SYS     AUTO
FINE TUNE
SKIP                ON
POS. CHANGE      2
```

3.

Press the Volume Up "+" or Down "−" button.

Press the Position Left or Right button.

Repeat steps 2 and 3, if you wish to cancel the Skip function on any other Programme Number.

```
2          PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS      5.5MHz
COLOUR SYS     AUTO
FINE TUNE
SKIP                OFF
POS. CHANGE      2
```
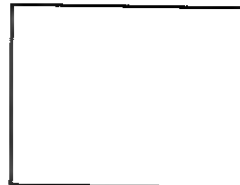
The displayed "ON" condition changes to "OFF".

4.

After the Skip Cancel operation is completed, press the "PRE." button twice.

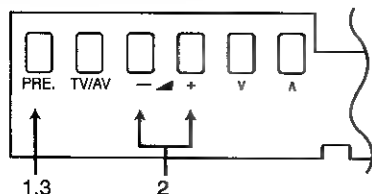After the Skip Cancel Operation is completed, press the "MAIN MENU" button twice.

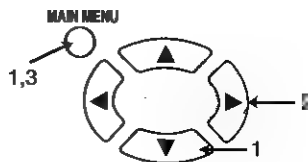This returns the set to the normal viewing condition.
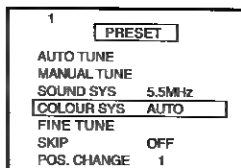
Colour System Selection

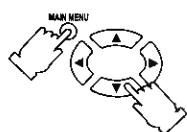Use this function if a clear picture with weak colour is obtained when a Broadcast or AV signal is received.

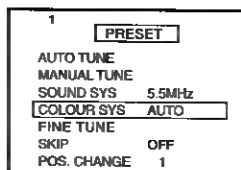OR

1.

Press the "PRE." (PRESET) button 4 times.

Press the "MAIN MENU" and "Position" buttons, until "COLOUR SYS" is selected.

```
1        PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS    5.5MHz
COLOUR SYS   AUTO
FINE TUNE
SKIP         OFF
POS. CHANGE   1
```

Colour System condition.

2.

Press the Volume Up "+" or Down button, "–" repeatedly until the optimum image is produced.

Press the Position Left or Right button repeatedly until the optimum image is obtained.

```
1        PRESET
AUTO TUNE
MANUAL TUNE
SOUND SYS    5.5MHz
COLOUR SYS   AUTO
FINE TUNE
SKIP         OFF
POS. CHANGE   1
```

The Colour System will change as shown:

AUTO ⟷ PAL ⟷ SECAM

NTSC 3.58 ⟷ NTSC 4.43

3.

Press the "PRE." (PRESET) button 4 times.

Press the "MAIN MENU" button twice.

This returns the set to the normal viewing condition.

This selected Colour System is automatically memorized.

Sound System Selection

This function is used only in the TV mode, and is not applicable in AV mode. When the sound is not clear or no sound is produced on a channel.

OR

1.

Press the "PRE." (PRESET) button 3 times.

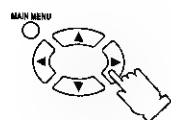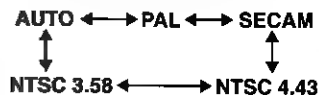| 1	PRESET
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF
POS. CHANGE	1

Sound System condition.

Press the "MAIN MENU" and "Position" buttons, until "SOUND SYS" is selected.

2.
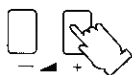
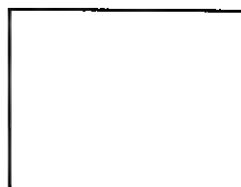Press the Volume Up "+" or Down "−" button, repeatedly until the optimum image is produced.

1	PRESET
AUTO TUNE	
MANUAL TUNE	
SOUND SYS	5.5MHz
COLOUR SYS	AUTO
FINE TUNE	
SKIP	OFF
POS. CHANGE	1
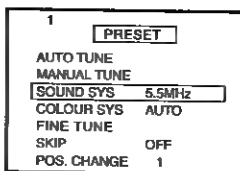
The Sound System will change as shown:

4.5MHz ◄────► 5.5MHz

6.5MHz ◄────► 6.0MHz
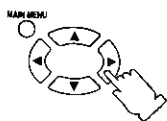
Press the Position Left or Right button repeatedly until the optimum image is obtained.

3.

Press the "PRE." (PRESET) button 5 times.
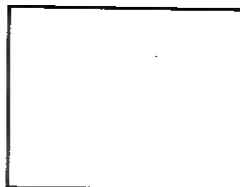
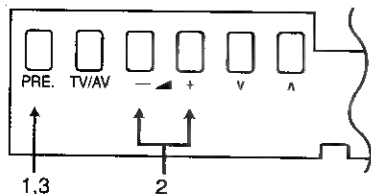This returns the set to the normal viewing condition.

Press the "MAIN MENU" button twice.
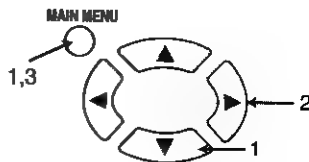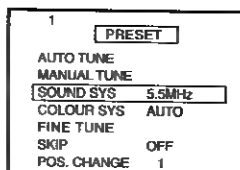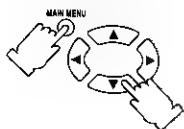
This selected Sound System is automatically memorized.

20

Tuning Procedure

Pos. Change

This feature will enable the user to swap (Exchange) channel memory of 2 selected channels. The Position Change function allows one to shift from the present channel to any Programme Number without any tuning process.
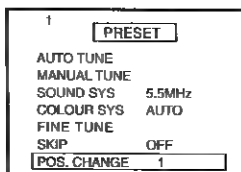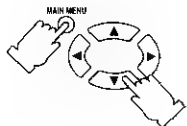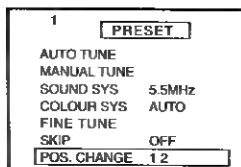
1. Press the "PRE." (PRESET) button 7 times.

```
1        [ PRESET ]
AUTO TUNE
MANUAL TUNE
SOUND SYS      5.5MHz
COLOUR SYS     AUTO
FINE TUNE
SKIP           OFF
POS. CHANGE     1
```

Press the "MAIN MENU" and "Position" buttons, until "POS. CHANGE" is selected.

2. Select a Programme Number you want to change by pressing either Channel Up or Down button, two digit programme selection or Direct Programme number selection on the Remote Control.
(Position Change will only exist in preset mode).

```
1        [ PRESET ]
AUTO TUNE
MANUAL TUNE
SOUND SYS      5.5MHz
COLOUR SYS     AUTO
FINE TUNE
SKIP           OFF
POS. CHANGE    1 2
```

Note:
Position Change also can be operated using panel key. Use PRESET key to enter POSITION CHANGE, then, use volume up/down to change the channel to be swapped to. Use TV/AV to confirm.

3. Press the "TV/AV" button to confirm.

```
1 2      [ PRESET ]
AUTO TUNE
MANUAL TUNE
SOUND SYS      5.5MHz
COLOUR SYS     AUTO
FINE TUNE
SKIP           OFF
POS. CHANGE    1 2
```
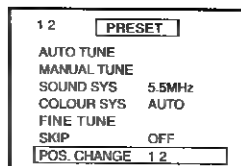
4. Press the "PRE." (PRESET) button once.

This returns the set to the normal viewing condition.

Press the "MAIN MENU" button twice.

Picture Menu Operation
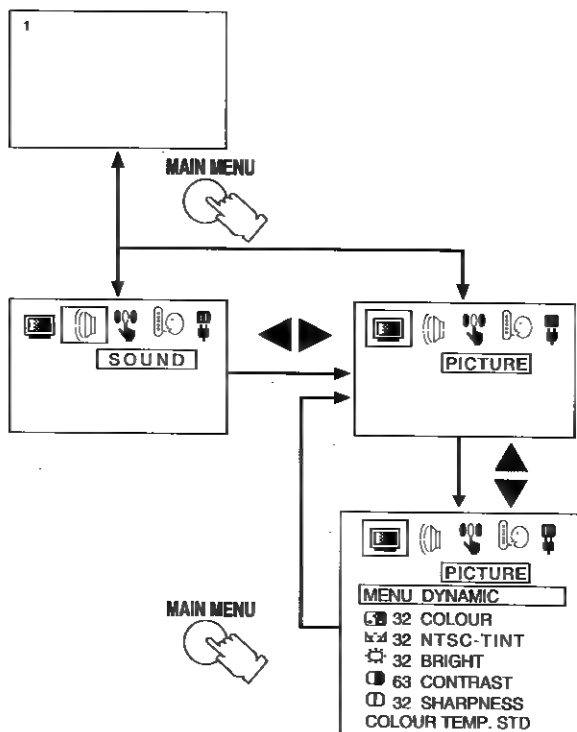
Picture Menu

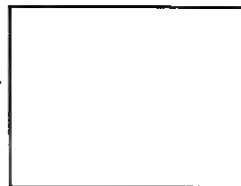| Press	Item	Effect	Indicator
▲▼ Select	MENU DYNAMIC	→ MENU DYNAMIC ←→ MENU STANDARD ← → MENU SOFT ←	MENU DYNAMIC
▲▼ Select	COLOUR	◄► Less More	📷 32 COLOUR
▲▼ Select	NTSC-TINT	◄► Greenish Reddish	32 NTSC-TINT
▲▼ Select	BRIGHT	◄► Darker Brighter	32 BRIGHT
▲▼ Select	CONTRAST	◄► Less More	63 CONTRAST
▲▼ Select	SHARPNESS	◄► Less More	32 SHARPNESS
▲▼ Select	COLOUR TEMP. STD	→ COLOUR TEMP. STD ←→ COLOUR TEMP. COOL ← → COLOUR TEMP. WARM ←	COLOUR TEMP. STD

Helpful Hint

1. By pressing the normal "N" button on the Remote Control while the Picture Menu is displayed, the setting of the selected function will be return to factory setting level.

Sound Menu Operation
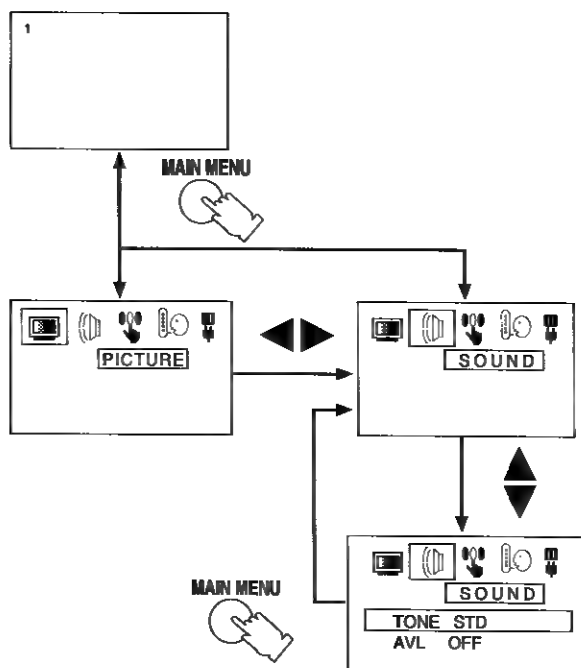
Sound Menu

Press	Item	Effect	Indicator
▲▼ Select	TONE	TONE LOW ←→ TONE STD ← TONE HIGH ←	TONE
▲▼ Select	AVL	◄► ON ←→ OFF	AVL

AVL (Auto Volume Limiter)

The AVL function will limit the volume output for music, speech and movie at preset level when it is on.

Features Menu Operation
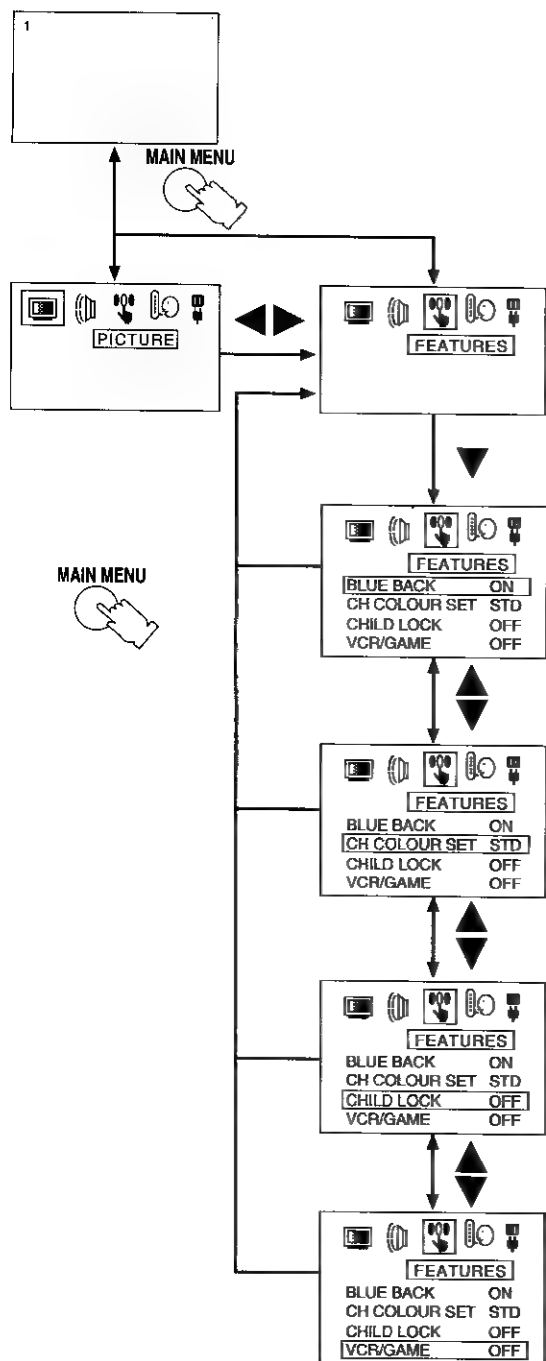
BLUE BACK mode

When no picture signal is received, or the signal is weak, the screen reverts to a blue background colour and the sound is muted.

Disable this features to continue watching very weak signals.

Blue background colour if no input picture signal or input signal is weak.

CH (Channel) COLOUR SET mode

Colour density varying between broadcast channels can be adjusted to three levels for each reception channel as follows:

STD ←→ HIGH ←→ LOW

CHILD LOCK mode

To child lock any channel, press the position left or right button.

1) When channel is "LOCK", sound is muted and screen becomes blue colour.
2) If any of the channels is CHILD LOCK, then preset key at any panel will not work. If preset key (Panel) is pressed, message "CHILD LOCK ON" will appear.
3) Main power ON in child locked channel will display "CHILD LOCK ON" on screen to remind user that the Child lock is On and is in Child locked channel.
4) Each channel has its own memory for channels to be child locked.

VCR/GAME mode

Reproduction of irregular signals, such as TV games and rental video tapes, may be improved. The VCR/GAME mode will change as shown:
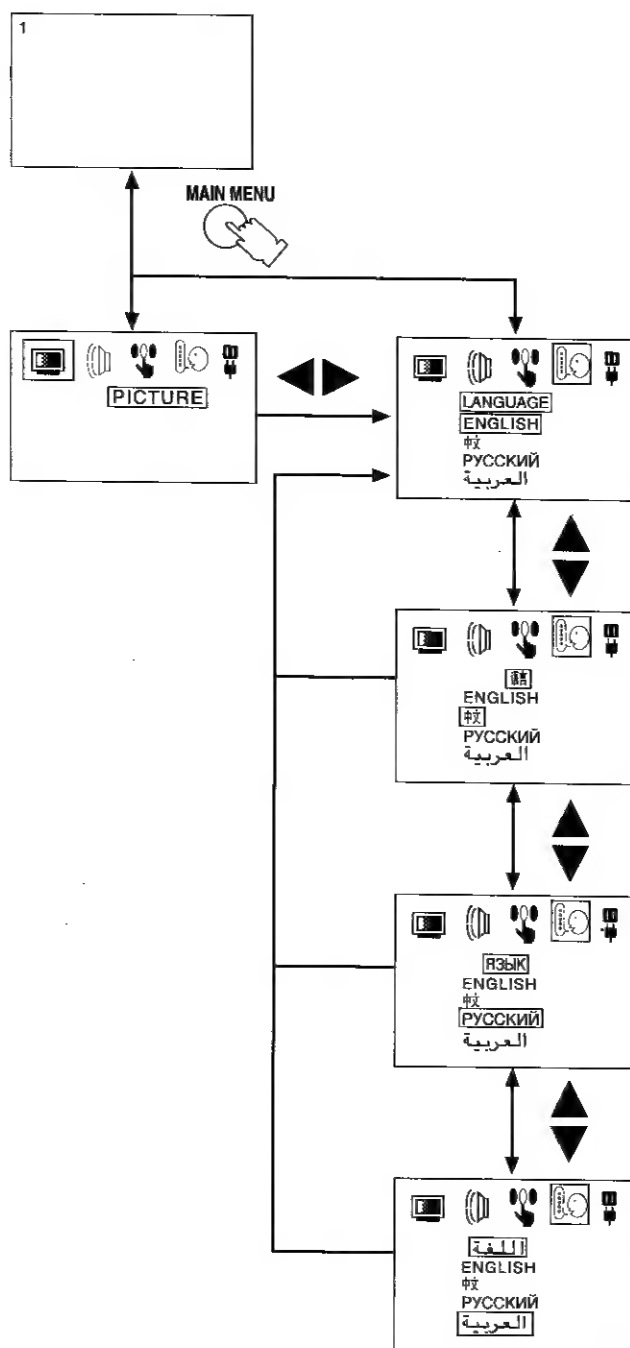
ON ←→ OFF

Language Menu Operation

Language Menu

Press the "Position Up or Down" button. The on-screen language display will change as follows :

MAIN MENU

PICTURE

LANGUAGE
ENGLISH
中文
РУССКИЙ
العربية

ENGLISH
中文
РУССКИЙ
العربية

ЯЗЫК
ENGLISH
中文
РУССКИЙ
العربية

اللغة
ENGLISH
中文
РУССКИЙ
العربية

Troubleshooting

Before calling for service, determine the symptoms and make a few simple checks as shown below.

Symptoms		Checks
Picture	**Sound**	
Snowy Picture	Noisy Sound	Aerial Location, direction Connection
Multiple Image	Normal Sound	Aerial Location, direction Connection
Interference	Noisy Sound	Electrical Appliances Cars / Motorcycles Fluorescent Lamps
Normal Picture	No Sound	Volume (Check whether the mute function has been activated on the Remote Control.)
No Picture	No Sound	Not plugged into AC outlet Not switched on Contrast and Brightness / Volume Setting (Check by pressing the Power Switch or Stand-by Button on the Remote Control.)
No Colour	Normal Sound	Colour Control
Scrambled	Weak Sound	Re-tune Channels
Colour Patches	Normal Sound	Magnetic interference from unshielded equipment. Receiver moved while "ON"
No Colour	Noisy Sound	Sound System Colour System

Specifications

Power Source : AC AUTO 110–240V, 50/60Hz
Power Consumption : 61 W
Receiving System : 17 SYSTEMS

	SYSTEMS	FUNCTION
1. 2. 3. 4. 5. 6. 7.	PAL B,G,H PAL I PAL D,K SECAM B,G SECAM D. K. SECAM K1 NTSC M (NTSC 3.58 / 4.5MHz)	Reception of broadcast transmissions and playback from video cassette tape recorders.
8. 9. 10. 11. 12. 13. 14.	NTSC 4.43 / 5.5MHz NTSC 4.43 / 6.0MHz NTSC 4.43 / 6.5MHz NTSC 3.58 / 5.5MHz NTSC 3.58 / 6.0MHz NTSC 3.58 / 6.5MHz SECAM I	Playback from special VCR only.
15. 16. 17.	PAL 60Hz / 5.5MHz PAL 60Hz / 6.0MHz PAL 60Hz / 6.5MHz	Playback from special Disc player and VCR only.

Receiving Channels :

VHF BAND	UHF BAND	CATV
2 – 12 PAL / SECAM B,K1 0 – 12 PAL B (AUST.) 1 – 9 PAL B (N.Z.) 1 – 12 PAL / SECAM D 1 – 12 NTSC M (JAPAN) 2 – 13 NTSC M (U.S.A.)	21 – 69 PAL G,H,I / SECAM G,K,K1 28 – 69 PAL B (AUST.) 13 – 57 PAL D,K 13 – 62 NTSC M (JAPAN) 14 – 69 NTSC M (U.S.A.)	S1 – S20 (OSCAR) 1 – 125 (USA CATV) C13 – C49 (JAPAN) S21 - S41 (HYPER) Z1 - Z37 (CHINA) 5A, 9A (AUST.)

Tuning System : Frequency synthesizer Auto search tuning: 100 position.
Picture Tube : 34 cm, measured diagonally, 90° deflection.
Audio Output : 2.5 W × 2 (Speakers)
Aerial Impedance : 75 Ω Unbalanced coaxial.
Remote Control Transmitter : TNQ4G0401
Battery : R6 (AA) × 2
Dimension (W × D × H) : 459 × 380.7 × 353.8 mm
Weight (Net) : 10.1 kg

Note:
Design and Specifications are subject to change without notice.

Customer's Record

The model number and serial number of this product can be found on its cover. You should note this serial number in the space provided below and retain this book plus your purchase receipt as a permanent record of your purchase to aid in identification in the event of theft or loss, and for Warranty Service purposes.

Model Number _____

Serial Number _____